**REMARKS**

In the Office Action mailed December 19, 2006, claim 26 was rejected under 35 U.S.C. 112, second paragraph; claims 11-21, 23, 26-28 and 31-32 were rejected under 35 U.S.C. 102(b) as being anticipated by Ebara et al. (U.S. Patent No. 6,189,335); claims 1, 11, 20, 23, 27 and 31-32 were rejected under 35 U.S.C. 102(e) as being anticipated by Cho et al. (U.S. Patent No. 2004/0071560); claims 1-10, 29 and 30 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ebara in view of Robbins et al. (U.S. Patent No. 6,190,137); claims 22 and 24-25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ebara in view of Robbins; and claim 33 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ebara in view of Robbins. The foregoing rejections are respectfully traversed.

Claim 26 has been amended based upon the Examiner's comments at page 2 of the Office Action.

Claims 1-33 are currently pending and under consideration. Reconsideration is respectfully requested.

**Regarding 102(b) rejections of claims 11-21, 23, 26-28 and 31-32:**

Claim 11 recites "a rotary compressor, comprising: a rotating shaft having first and second eccentric parts which rotate thereby; **a first compression chamber in which a refrigerant compression stroke or an idle stroke is performed in accordance with a first rotating direction or a second rotating direction of the first eccentric part of the rotating shaft** to selectively compress a refrigerant in the first compression chamber; **a second compression chamber in which the refrigerant compression stroke or the idle stroke is performed in accordance with the first rotating direction or the second rotating direction of the second eccentric part of the rotating shaft** to selectively compress a refrigerant in the second compression chamber, such that **first and second compression chambers alternately perform the refrigerant compression stroke and the idle stroke**; and a compression capacity controller to control a compression of the first compression chamber". The Applicants respectfully submit that Ebara fails to discuss the features recited in claim 11, for example.

In contrast, Ebara discusses a multi-stage compressing refrigeration device having a **Brushless DC motor (BLDC)**, and a compressing element rotated and operated by the electric motor is contained in a lower section (see column 5, lines 10-15, for example). Further, the multi-stage compressing refrigeration device includes a low-stage compressing means and a high-stage compressing means, a condenser, first expanding means, an intermediate

evaporator, second expanding means and a main evaporator (see column 2, lines 14-18, for example). The refrigerant flowing out of the condenser is branched in one refrigerant passed to the intermediate evaporator via the first expanding means and the other refrigerant passed to the main evaporator via the second expanding means. The refrigerant flowing out of the main evaporator is sucked by the low-stage compressing means and the refrigerant flowing out of the intermediate evaporator is sucked by the high-stage compressing means together with the refrigerant discharged from the low-stage compressing means. Therefore, while the torque fluctuation in one compressing operation in the compressor is suppressed, a high compression ratio can be obtained. Further the temperature of the gas refrigerant sucked by the high-stage compressing means can be lowered (see column 3, lines 36-49, for example). Various embodiments of the present invention do not use a BLDC motor (see paragraph [0005] of the present invention. Instead, the rotary compressor of the present invention uses a mechanical mechanism, for example.

At page 3 of the Office Action, the Examiner asserts that column 11, lines 51-53 of Ebara discuss "first and second compression chambers alternately perform the refrigerant compression stroke and the idle stroke," as recited in claim 11. The Applicants respectfully disagree.

The Applicants respectfully submit that "**first mode M1**" discussed at column 11, lines 51-53 of Ebara is not comparable to "first and second compression chambers alternately perform the refrigerant compression stroke and the idle stroke" as recited in claim 11. Instead, first mode M1 is when the high-stage compressing section is operated for cooling without using the low-stage compressing section, for example, during the night or when outside air temperature is low, such that the cooling ability is lowered. The operations of first mode M1 of Ebara are not the same as "a first compression chamber in which a refrigerant compression stroke or an idle stroke is performed in accordance with a first rotating direction or a second rotating direction of the first eccentric part of the rotating shaft...[and] a second compression chamber in which the refrigerant compression stroke or the idle stroke is performed in accordance with the first rotating direction or the second rotating direction of the second eccentric part of the rotating shaft," as recited in claim 11. Instead, in the first mode M1, a first switching solenoid valve 245 stops the refrigerant from flowing in from the flow combiner and the refrigerant is passed to the high-stage compressing section from the evaporator and a solenoid valve 247 is closed to stop the refrigerant from flowing toward the low-stage compressing section (see column 10, lines 55-64). That is, in Ebara the operating of the high-stage compressing section to cool without using the low-stage compressing section is not based upon a rotating direction of the rotating shaft. Independent claims 27, 31 and 32 recite features

somewhat similar to those recited in claim 11, therefore, the comments mentioned above may also be applied to these claims.

**Regarding 102(e) Rejection of claims 1, 11, 20, 23, 27 and 31-32:**

Claim 1 recites "a rotary compressor, comprising: a rotating shaft having first and second eccentric parts; a reversible motor to rotate the rotating shaft in either a first rotating direction or a second rotating direction; a first cylinder comprising: a first compression chamber in which a refrigerant compression stroke or an idle stroke is performed in accordance with the first or second rotating direction of the first eccentric part of the rotating shaft; a first intake port to suck a refrigerant into the first compression chamber; and a first exhaust port to discharge the refrigerant from the first compression chamber after the refrigerant is compressed; a second cylinder comprising: a second compression chamber in which the refrigerant compression stroke or the idle stroke is performed in accordance with the first or second rotating direction of the second eccentric part of the rotating shaft, such that first and second compression chambers alternately perform the compression stroke and the idle stroke; a second intake port to suck the refrigerant into the second compression chamber; and a second exhaust port to discharge the refrigerant from the second compression chamber after the refrigerant is compressed; a first sub-path which allows a predetermined point of the first compression chamber to communicate with the first intake port so as to control a compression capacity of the first compression chamber; and a path control unit to control an opening ratio of the first sub-path".

Cho discusses a rotary compressor including cylinders, a rotating shaft having eccentric parts which are eccentrically rotated in compression chambered defined in the cylinder, and a plurality of roller pistons which compress refrigerant in the compression chamber by eccentric rotations of the eccentric parts. The rotary compressor also includes a reversible motor which rotates the rotating shaft in selectively opposite directions, and a clutch which engages the roller pistons such that the roller pistons perform a compressing action or an idling action according to the rotating direction of the rotating shaft (see paragraph [0013]). Further, Cho discusses that when a first cam bushing makes the first roller piston eccentrically rotate when the rotating shaft rotates clockwise, performing a compressing action in the first cylinder. When the rotating shaft rotates counterclockwise, the first cam bushing makes the first roller piston idly rotate so that the compressing action is not performed in the first cylinder. Further, a second cam bushing makes the second roller piston idly rotate when the rotating shaft rotates clockwise, so that the compressing action is not performed in the second cylinder during the clockwise rotation and when the rotating shaft rotates counterclockwise, the second cam bushing makes the second roller piston eccentrically rotate to perform a compressing action in the second cylinder (see

paragraph [0045]). Cho fails to discuss "**a first cylinder comprising...a first intake port** to suck a refrigerant into the first compression chamber; **and a first exhaust port** to discharge the refrigerant from the first compression chamber after the refrigerant is compressed; **a second cylinder comprising...a second intake port** to suck the refrigerant into the second compression chamber; and **a second exhaust port** to discharge the refrigerant from the second compression chamber after the refrigerant is compressed; **a first sub-path** which allows a predetermined point of the first compression chamber to communicate with the first intake port so as to control a compression capacity of the first compression chamber; and **a path control unit to control an opening ratio of the first sub-path**," as recited in claim 1, for example.

At page 5 of the Office Action, the Examiner asserts that paragraph [0051] of Cho discusses the Applicants "path control unit" as recited in claim 1, for example. The Applicants respectfully disagree with the Examiner. In contrast, paragraph [0051] of Cho merely discusses that the rotary compressor may be designed such that a ratio of a compression capacity obtained in the first cylinder when the rotating shaft is rotated clockwise to a compression capacity obtained in the second cylinder when the rotating shaft is rotated counterclockwise becomes 10:4. Further, Cho discusses that the compressor may be designed such that the compression capacity of the first cylinder is smaller than the compression capacity of the second cylinder. Claims 11, 20, 23, 27, 31-32 recite features somewhat similar to those recited in claim 1, therefore, the comments mentioned above may also be applied to these claims.

Accordingly, claims 1, 11, 20, 23, 27 and 31-32 patentably distinguish over Cho.

**Regarding 103(a) rejection of claims 1-10, 22, 24-25, 29, 30 and 33:**

At page 6 of the Office Action, the Examiner admits that Ebara fails to include the Applicants "reversible motor" as recited in claim 1, for example. Therefore, the Examiner asserts that Robbins makes up for the deficiency of Ebara.

The Applicants respectfully traverse the Examiner's assertion of obviousness and submit that there is no motivation to combine Ebara and Robbins. As mentioned above, Ebara specifically discusses a multi-stage compressing refrigeration device having a **Brushless DC motor (BLDC)**. Therefore, it would not be obvious to one skilled in the art to use a "reversible motor" as discussed in Robbins with the multi-stage compressing refrigeration device of Ebara.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or discuss all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). *See* M.P.E.P. § 2142.

Although the above comments are specifically directed to claim 1, it is respectfully submitted that the comments would be helpful in understanding differences of various other rejected claims over the cited references.

Thus, withdrawal of the rejections of claims 1-33 is respectfully requested.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 3/8/2007

By: 
Deidre M. Davis
Registration No. 52,797

1201 New York Avenue, NW, 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501